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PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA
DOCKET NO. 2003-001-E
DIRECT TESTIMONY OF CAROLINA POWER & LIGHT COMPANY
d/b/a PROGRESS ENERGY CAROLINAS, INC.

RECEIVED
FEB 18 2003
UTILITIES DEPARTMENT

WITNESS BRUCE P. BARKLEY

1 Q. **Please state your name, address, and position.**

2 A. My name is Bruce P. Barkley and my business address is 412 S. Wilmington
3 Street, Raleigh, North Carolina. My position is Manager- Regulatory Accounting
4 in Progress Energy Service Company (Progress Energy) which is an affiliate of
5 Progress Energy Carolinas, Inc.

6 Q. **Please describe your educational background and professional experience.**

7 A. I obtained a Bachelor of Science Degree in Business Administration with a
8 concentration in Accounting from the University of North Carolina at Chapel Hill
9 in 1984 and an MBA Degree from Wake Forest University in 1999. I obtained
10 my CPA license in 1987. I joined Progress Energy in the Regulatory Services
11 Section in May 2001 and I am responsible for regulatory accounting and
12 reporting. Prior to joining Progress Energy, I held various positions with Public
13 Service Company of North Carolina (PSNC), based in Gastonia, NC, from 1988
14 to 2001. While working at PSNC, I was responsible for regulatory filings and
15 reports submitted to the North Carolina Utilities Commission (NCUC).

16 Q. **What is the purpose of your testimony?**

17 A. The purpose of my testimony is to: review the Company's fuel cost and revenue
18 collection for the period January 2002 through December 2002; present projected
19 fuel cost for the period April 1, 2003 through March 31, 2004; and recommend a

1 fuel factor to be effective April 1, 2003. My Exhibits 1 and 2 reflect actual
2 information for calendar year 2002. My Exhibits 3 and 4 address the projected
3 period through March 2004.

4 **Q. Please explain Barkley Exhibit No. 1.**

5 A. Barkley Exhibit No. 1 is a summary of Progress Energy Carolinas' actual system
6 fuel cost and kilowatt-hour sales experienced during the period January 2002
7 through December 2002. Lines 1-9 provide a breakdown of our fossil fuel
8 expense by type of generation resource - coal, oil, or gas - and indicate the type of
9 generating unit which consumed the fuel. Total fossil fuel expense is shown on
10 line 9. Emission allowance expense is shown on line 10 and nuclear fuel expense
11 on line 11. Lines 12-14 show our net purchased power expense. Total system fuel
12 expense is shown on line 15. Line 16 is a summary of net system kilowatt-hour
13 sales associated with the incurred fuel expense and line 17 indicates the system
14 average cost of fuel per kilowatt-hour sold each month.

15 **Q. What proxy are you using on purchased power to determine the proper**
16 **amount to recover through the fuel clause?**

17 A. During the test period, we utilized the avoided cost proxy as the most appropriate
18 test to determine the amount of purchased power expense eligible for fuel cost
19 recovery. This avoided cost proxy compares the cost of the purchase to the cost
20 of the next available generation resource unit to determine if the proper decision
21 was made to serve the customer. This comparison is in concert with the
22 responsibility of the electric provider to operate its system in the most cost
23 effective manner and thus provide the customer with the lowest fuel cost. This

1 amount approved in Docket 2000-001-E for recovery over a four-year period. The
2 final \$2.2 million under-recovered amount is included in the \$6.9 million
3 projected balance at March 2003.

4 Q. **Please explain Barkley Exhibit No. 4.**

5 A. Barkley Exhibit No. 4 is a continuation of my Exhibit No. 2 showing projected
6 costs and revenues, by month, for the period January 2003 through March 2004
7 and is based on the most current fuel cost information available. The projection
8 assumes scheduled maintenance and refueling outages for certain of our nuclear
9 generating units based on the latest plan and includes forced outage rates for fossil
10 units based upon historical outage data. The exhibit continues the use of the
11 current base fuel component of 1.471¢/kWh for the January 2003 through March
12 2003 period and uses a base fuel component of 1.497¢/kWh for the period April
13 2003 through March 2004.

14 Q. **Are you recommending the adoption of a base fuel component of 1.497¢/kWh**
15 **in this proceeding?**

16 A. No, although a higher factor of 1.497¢/kWh is justified as I explained earlier,
17 given the impreciseness of forecasting and in the interest of rate stability, Progress
18 Energy Carolinas is asking the Commission to continue the current fuel factor of
19 1.471¢/kWh for the next 12-month period.

20 Q. **Does that conclude your testimony?**

21 A. Yes, it does.

PROGRESS ENERGY CAROLINAS, INC.

SYSTEM FUEL COST
 SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2003-001-E
 SIX MONTHS ENDED JUNE 2002

	2002 JANUARY	2002 FEBRUARY	2002 MARCH	2002 APRIL	2002 MAY	2002 JUNE
STEAM ELECTRIC (ISSUED FROM ACCT 151)						
1 COAL	\$44,078,719.83	\$37,976,638.60	\$44,235,987.43	\$35,869,662.89	\$34,842,351.99	\$47,697,803.28
2 OIL	\$290,490.99	\$212,782.03	\$244,878.25	\$267,060.61	\$361,095.97	\$348,043.35
3 NATURAL GAS	15488.79	0	0	0	180078.99	\$ 630,536.78
4 TOTAL STEAM ELECTRIC	\$44,384,699.61	\$38,189,420.63	\$44,480,865.68	\$36,136,723.50	\$35,383,526.95	\$48,676,383.41
I. C. TURBINES (ISSUED FROM ACCT 151)						
5 OIL	\$3,207,237.16	\$997,356.72	\$2,041,925.98	\$988,335.75	\$1,194,733.56	\$1,162,813.57
6 NATURAL GAS	\$1,944,742.66	\$1,292,450.45	(\$2,775,446.09)	\$3,643,944.59	\$5,801,562.20	\$8,941,927.22
7 PROPANE GAS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8 TOTAL I. C. TURBINES	\$5,151,979.82	\$2,289,807.17	(\$733,520.11)	\$4,632,280.34	\$6,996,295.76	\$10,104,740.79
9 TOTAL FOSSIL FUEL	\$49,536,679.43	\$40,479,227.80	\$43,747,345.57	\$40,769,003.84	\$42,379,822.71	\$58,781,124.20
10 EMISSION ALLOWANCES	\$842,593.02	\$709,988.56	\$805,643.93	\$620,404.04	\$661,313.70	\$862,289.01
11 NUCLEAR FUEL	\$9,275,233.65	\$8,609,144.71	\$7,424,415.25	\$8,544,852.03	\$9,852,307.83	\$9,363,705.25
12 PURCHASED POWER: PURCHASES	\$7,579,128.92	\$7,684,661.26	\$7,179,906.95	\$8,947,804.46	\$11,183,746.84	\$15,746,111.94
13 SALES	(\$9,734,202.00)	(\$10,050,743.80)	(\$10,641,414.91)	(\$9,672,367.68)	(\$12,191,984.62)	(\$18,144,788.48)
14 NET Purchased Power	(\$2,155,073.08)	(\$2,366,082.54)	(\$3,461,507.96)	(\$724,563.22)	(\$1,008,237.78)	(\$2,398,676.54)
15 TOTAL FUEL COST	\$57,499,433.02	\$47,432,258.53	\$48,515,896.79	\$49,209,696.69	\$51,885,206.46	\$66,608,441.92
16 TOTAL KWH SALES	4,326,356.900	3,986,640,600	3,660,252,000	3,650,567,200	3,940,845,300	4,230,780,300
17 COST PER KWH	\$0.01329	\$0.01190	\$0.01325	\$0.01348	\$0.01317	\$0.01574

PROGRESS ENERGY CAROLINAS, INC.

SYSTEM FUEL COST

SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2003-001-E
 SIX MONTHS ENDED DECEMBER 2002

	2002 JULY	2002 AUGUST	2002 SEPTEMBER	2002 OCTOBER	2002 NOVEMBER	2002 DECEMBER
STEAM ELECTRIC (ISSUED FROM ACCT 151)						
1 COAL	\$57,542,201.08	\$53,645,150.67	\$49,861,996.30	\$44,331,176.91	\$45,520,639.49	\$50,304,296.58
2 OIL	\$193,624.21	\$245,221.76	\$200,143.94	\$281,450.85	\$424,258.66	\$285,806.90
3 NATURAL GAS	(37,980.28)	\$293,209.42	\$282,581.79	\$52,532.97	(\$7,361.59)	\$0.00
4 TOTAL STEAM ELECTRIC	\$57,697,845.01	\$54,183,581.85	\$50,344,722.03	\$44,665,160.73	\$45,937,536.56	\$50,590,103.48
I. C. TURBINES (ISSUED FROM ACCT 151)						
5 OIL	\$1,154,939.99	\$722,971.78	\$116,970.78	\$334,972.14	\$163,658.96	\$423,703.62
6 NATURAL GAS	\$18,972,331.29	\$33,123,666.46	\$10,524,320.49	\$6,302,457.94	\$2,780,898.57	\$2,718,615.20
7 PROPANE GAS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8 TOTAL I. C. TURBINES	\$20,127,271.28	\$33,846,638.24	\$10,641,291.27	\$6,637,430.08	\$2,944,557.53	\$3,142,318.82
9 TOTAL FOSSIL FUEL	\$77,825,116.29	\$88,030,220.09	\$60,986,013.30	\$51,302,590.81	\$48,882,094.11	\$53,732,422.30
10 EMISSION ALLOWANCES	\$1,018,633.14	\$864,824.93	\$938,982.49	\$735,294.83	\$628,475.59	\$823,872.41
11 NUCLEAR FUEL	\$9,197,972.46	\$9,585,517.22	\$8,754,493.67	\$8,308,627.40	\$8,564,502.32	\$9,883,645.90
12 PURCHASED POWER: PURCHASES	\$18,655,590.77	\$18,591,994.33	\$8,737,773.72	\$7,457,203.45	\$5,363,192.54	\$7,541,922.86
13 SALES	(\$23,291,233.27)	(\$17,293,528.42)	(\$15,532,507.75)	(\$9,358,006.09)	(\$10,800,039.85)	(\$14,575,620.82)
14 NET Purchased Power	(\$4,635,642.50)	\$1,298,465.91	(\$8,794,734.03)	(\$1,900,804.64)	(\$5,436,847.31)	(\$7,033,697.96)
15 TOTAL FUEL COST	\$83,406,079.39	\$99,769,028.15	\$63,884,755.43	\$58,445,708.40	\$52,638,224.71	\$57,412,242.65
16 TOTAL KWH SALES	4,931,109,100	5,027,552,900	4,583,938,100	4,065,246,700	3,683,742,200	4,305,682,200
17 COST PER KWH	\$0.01691	\$0.01984	\$0.01394	\$0.01438	\$0.01429	\$0.01333

PROGRESS ENERGY CAROLINAS, INC.

SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2003-001-E

COMPARISON OF ACTUAL FUEL REVENUES AND EXPENSES
January 2002 - December 2002

	2002 JANUARY	2002 FEBRUARY	2002 MARCH	2002 APRIL	2002 MAY	2002 JUNE
1 ACTUAL SC RETAIL SALES (KWH)	590,653,624	566,788,497	517,394,487	537,582,771	565,213,915	601,913,113
2 ACTUAL FUEL COST	0.01329	0.01190	0.01325	0.01348	0.01317	0.01574
3 FUEL BASE	0.01517	0.01517	0.01517	0.01471	0.01471	0.01471
4 REVENUE REQUIRED	7,849,787	6,744,783	6,855,477	7,246,616	7,443,867	9,474,112
5 REVENUE BILLED	8,960,215	8,598,181	7,848,874	7,907,843	8,314,297	8,854,142
6 OVER (UNDER) RECOVERY	1,110,428	1,853,398	993,397	661,227	870,429	(619,971)
7 ACCOUNTING ADJUSTMENT				1,401,723		
8 CUMULATIVE RECOVERY	(\$9,231,638)	(\$7,378,240)	(\$6,384,843)	(\$4,321,893)	(\$3,451,464)	(\$4,071,435)
9 ACTUAL SC RETAIL SALES (KWH)	677,979,377	702,842,066	635,338,086	593,470,013	504,741,544	579,154,724
10 ACTUAL FUEL COST	0.01691	0.01984	0.01394	0.01438	0.01429	0.01333
11 FUEL BASE	0.01471	0.01471	0.01471	0.01471	0.01471	0.01471
12 REVENUE REQUIRED	11,464,531	13,944,387	8,856,613	8,534,099	7,212,757	7,720,132
13 REVENUE BILLED	9,973,077	10,338,807	9,345,823	8,729,944	7,424,748	8,519,366
14 OVER (UNDER) RECOVERY	(1,491,554)	(3,605,580)	489,210	195,845	211,991	799,234
15 ACCOUNTING ADJUSTMENT						
16 CUMULATIVE RECOVERY	(\$5,562,989)	(\$9,168,569)	(\$8,679,359)	(\$8,483,514)	(\$8,271,523)	(\$7,472,289)

PROGRESS ENERGY CAROLINAS, INC.

SOUTH CAROLINA RETAIL
CALCULATION FOR BASE FUEL COMPONENT
February 2003

1. Projected Fuel Expense from April 2003 through March 2004

Cost of Fuel	\$723,819,200
System Sales	51,642,118 Mwhts
Average Cost Per KWH	1.402 cents

2. Projected Revenue Difference through March, 2003

Under-Recovery at March 2003	(\$6,878,961)
Projected S.C. Retail Sales	7,225,639 Mwhts
Average Cost Per KWH	-0.095 cents

3. Base Fuel Cost Per KWH - Projected Period

Projected Expense	1.402 cents
Revenue Difference	0.095 cents

Base Fuel Component	1.497 cents

PROGRESS ENERGY CAROLINAS, INC.

SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2003-001-E

COMPARISON OF PROJECTED FUEL REVENUES AND EXPENSES

	2003 JANUARY	2003 FEBRUARY	2003 MARCH	2003 APRIL	2003 MAY	2003 JUNE	2003 JULY	2003 AUGUST	2003 SEPTEMBER
1 ESTIMATED SC RETAIL SALES (KWH)	821,817,875	607,448,000	588,369,000	551,274,000	556,870,000	586,624,000	675,213,000	713,575,000	555,975,000
2 ESTIMATED FUEL COST	0.01711	0.01297	0.01290	0.01191	0.01419	0.01556	0.01682	0.01544	0.01340
3 FUEL BASE	0.01471	0.01471	0.01471	0.01497	0.01497	0.01497	0.01497	0.01497	0.01497
4 REVENUE REQUIRED	10,639,304	7,878,614	7,331,331	6,565,673	7,901,985	8,816,669	11,357,083	11,017,598	8,790,065
5 REVENUE BILLED	9,146,941	8,935,575	8,360,561	8,252,572	8,336,344	8,482,361	10,107,939	10,682,219	9,819,946
6 OVER (UNDER) RECOVERY	(1,492,363)	1,056,961	1,028,730	1,686,999	434,359	(334,306)	(1,249,144)	(335,380)	1,025,881
7 CUMULATIVE RECOVERY	(\$8,964,652)	(\$7,907,691)	(\$6,878,961)	(\$5,192,062)	(\$4,757,703)	(\$5,092,011)	(\$6,341,155)	(\$6,676,535)	(\$5,646,654)

	2003 OCTOBER	2003 NOVEMBER	2003 DECEMBER	2004 JANUARY	2004 FEBRUARY	2004 MARCH
1 ESTIMATED SC RETAIL SALES (KWH)	538,161,000	548,108,000	598,238,000	619,728,000	620,999,000	580,874,000
2 ESTIMATED FUEL COST	0.01347	0.01297	0.01377	0.01390	0.01239	0.01309
3 FUEL BASE	0.01497	0.01497	0.01497	0.01497	0.01497	0.01497
4 REVENUE REQUIRED	7,249,029	7,108,961	8,237,737	8,614,219	7,694,178	7,503,641
5 REVENUE BILLED	8,056,270	8,205,177	8,955,823	9,277,329	9,286,355	8,695,694
6 OVER (UNDER) RECOVERY	807,241	1,096,216	717,886	663,109	1,602,177	1,092,043
7 CUMULATIVE RECOVERY	(\$4,839,413)	(\$3,743,197)	(\$3,025,311)	(\$2,362,202)	(\$760,025)	\$332,018